

REMARKS

This Amendment is submitted in response to the Office Action dated June 7, 2006. Claims 14, 19 and 20 are pending in the application. Claims 14, 19 and 20 were rejected. The Commissioner is hereby authorized to charge deposit account 02-1818 for any fees which are due and owing.

In the Office Action, Claim 14 was rejected under 35 U.S.C. §112, second paragraph, for allegedly omitting structural cooperative relationships between the elements, and, in particular, the name or structure of Formula I. Claim 14 was also rejected under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the written description requirement by not describing the R and X substituents of the fused imidazole. Also, in the Office Action, Claims 14, 19 and 20 were rejected under 35 U.S.C. §112, first paragraph, for alleged lack of enablement, and, in particular, lack of sufficient support for the use of a fused imidazole in a method of treating any neurodegenerative or neuropsychiatric disorder. Furthermore, Claims 14, 19 and 20 were rejected under 35 U.S.C. §102(a) and (e) as being anticipated by U.S. Patent No. 6,699,871 to Edmondson et al. (“*Edmondson*”), and were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,696,039 to Kung et al. (“*Kung*”) and U.S. Application No. 2002/0107273 to Nakao et al. (“*Nakao*”) in view of *Edmondson*. Applicants respectfully submit that the rejections have been overcome for at least the reasons set forth below.

The claims have been amended to more clearly specify the disorders being treated by the claimed invention and to clarify that the methods include administering an agent capable of increasing the number of neurons in a culture of neural progenitor cells. Support for these amendments can be generally found in the Specification at, for example, pages 32-38. Therefore, no new matter has been added by these amendments. To this end, Claim 14 has been amended to provide a method for treating neurological, psychiatric and aging-related disorders. Specification at, for example, page 14. The method includes obtaining a stable neural progenitor cell line. See Specification at, for example, page 32. The cell line is derived from human central nervous system, see Specification at, for example, page 33, is capable of expanding through at least ten cell-doublings in a substantially serum-free medium without differentiating, and is capable of differentiating into neurons and glia in the absence of mitogen. See Specification at, for example, pages 33, 34 and 37. The method also includes plating undifferentiated neural

progenitor cells of the cell line into an assay plate pre-coated with extracellular matrix proteins at a density. The density in a 96-well plate is between about 2,000 to about 125,000 cells per well. See Specification at, for example, pages 34 and 37. The method further includes exposing the neural progenitor cells to at least one test agent and culturing the neural progenitor cells in a serum-free, mitogen-free medium for a minimum of three days. See Specification at, for example, pages 34, 36 and 37. In addition, the method includes measuring a quantity of neurons and determining if the agent is capable of increasing the quantity of neurons. See Specification at, for example, pages 35 and 37-38. If the agent is capable of increasing the quantity of neurons, the method includes administering the agent to a patient in need thereof. See Specification at, for example, pages 28 and 42.

Applicants have also canceled Claims 1-3, 6-13, and 15-19 without prejudice or disclaimer. Applicants reserve the right to file any of these claims in one or more continuing applications. Applicants have also added new claims 21 to 33. New Claims 21, 22 28 and 29 are supported by the Specification at, for example, pages 28 and 42. New Claims 23, 24, 30 and 31 are supported by the Specification at, for example, page 33. New Claims 25 and 32 are supported by the Specification at, for example, page 34. New Claims 26 and 33 are supported by the Specification at, for example, pages 36. Support for new Claim 27 can be found in the Specification at, for example, pages 32-38. Therefore, no new subject matter has been introduced by the new claims.

Applicants recognize that Claim 14, as amended, and the claims which depend therefrom, including new claims, now include subject matter of non-elected claims. Applicants respectfully submit, however, that Claim 14 is an allowable generic claim and that the claims of Group I now depend from or require all of the limitations of Claim 14. In particular, Claim 14 links the method of selecting an agent, set forth in the claims of non-elected Group I, to be used in the treatment of the elected disorder. Accordingly, Applicants respectfully submit that the subject matter of the claims of non-elected Group I as set forth in the amendments of Claim 14 and the new claims are in condition for rejoinder and examination in accordance with 37 CFR 1.104.

Applicants respectfully submit that, even if it is proper to combine *Kung* with *Nakao* and *Edmondson*, the references alone, or in combination with the other references, do not teach or suggest each of the elements of the claimed invention. In particular, the references alone, or in

combination with the other references, do not teach or suggest administering an agent capable of increasing the number of neurons in a culture of neural progenitor cells or a method of identifying such an agent as in the claimed invention.

According to the Office Action, *Edmondson* allegedly discloses a fused imidazole used in the treatment of neurodegenerative disorders and psychiatric disorders, *Kung* discloses an imidazole used to treat inhibition of amyloid deposits that lead to a degenerative disorder such as Alzheimer's disease, and *Nakao* discloses a fused imidazole for the treatment of Alzheimer's disease. However, neither *Edmondson*, *Kung* nor *Nakao* teach or suggest administering an agent capable of increasing the number of neurons in a culture of neural progenitor cells or a method of identifying such an agent as in the claimed invention.

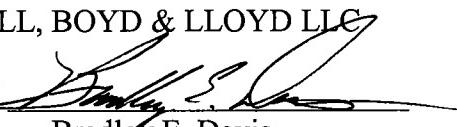
Even the Office Action acknowledges at pages 11 and 12 that none of the references disclose an agent capable of increasing the number of neurons as in the claimed invention. The Office Action reasons that an ordinary artisan would have had a "reasonable expectation" that disclosed compounds used to treat neurodegenerative disorders must have properties similar to a genus of compounds that treat neurodegenerative disorders and must necessarily regenerate neurons. There is nothing in the references, however, to suggest such an assumption to one of skill in the art. Mechanisms of disclosed compounds described in *Kung* for inhibiting amyloid deposits or *Edmondson* for inhibiting dipetidyl peptidase-IV enzyme activity to prevent degeneration of existing neurons do not include increasing the number of neurons, and no reason is apparent for making such a conclusion other than impermissible hindsight. Moreover, there is no evidence in the Office Action that the general knowledge in the art would lead the ordinary artisan to expect any of the described compounds to increase the number of neurons.

Therefore, none of the references alone, or in combination with the other references, teach or suggest administering to an individual in need thereof an agent capable of increasing the number of neurons in a culture of neural progenitor cells or a method of identifying such an agent as in the claimed invention. Accordingly, for at least these reasons, Applicants respectfully submit that the rejections to the claims have been overcome.

An earnest endeavor has been made to place this application in condition for allowance and such allowance is courteously solicited. If the Examiner has any questions related to this Response, Applicants respectfully submit that the Examiner contact the undersigned.

Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY 

Bradley E. Davis

Reg. No. 56,727

Customer No. 24573

Dated: December 7, 2006